

A PILOT SAFETY, EFFICACY AND PHARMACOKINETIC STUDY OF MEDICA 16 (M16) FOR UP TO FOUR MONTHS IN OBESE,

DUGITO DE CONTRACTO NON DIADEMICATA DE CIDADECE

DYSLIPOPROTEINEMIC, NON-DIABETIC MALE SUBJECTS

**SYNOPSIS** 

The safety and efficacy of Medica 16 (M16) was evaluated in 8 obese male

dyslipoproteinemic subjects with treatment of up to 4 months. Enrolled

subjects were placed on isocaloric diet to maintain body weight and blood

lipids and placed on a 4-5 month placebo treatment study run in. The

starting dose for all subjects was 200mg M16/day. One subject was

maintained on 200 mg/day for three months. For the other subjects, after 2

weeks at this dose, the dose was escalated step wise up to 300 mg/day (2

subjects), 400 mg/day (2 subjects), 600 mg/day (2 subjects), and 800 mg/day (1

subject). Safety, plasma triglycerides, cholesterol and M16 concentrations

were monitored through out the study.

Triglyceride levels decreased (mean 46%) within the first month of treatment

in all subjects, even at the lowest dose (200 mg/day); the overall mean

decrease in triglycerides was 55%.

The decline in cholesterol was 13% in the first month and approximately 16%

overall.

**OBJECTIVE** 

The objective of this pilot study was to obtain preliminary efficacy, safety and

pharmacokinetic data of β,β-tetramethylhexadecanedioic acid (M16) in obese

dyslipoproteinemic male volunteers.

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Exhibit C

## **RESULTS**

Data of individual triglyceride and cholesterol values and dose adjustments over the course of the study were obtained.

The data indicate that plasma triglycerides (TG) significantly decreased in all subjects and that the decrease was observed within the first month of treatment at even the lowest dose administered (200 mg/day). The decrease in triglycerides during the first month of treatment ranged from 27% to 65%, with an overall mean decline of 46%.

The effect on lowering cholesterol during the first month of treatment was less pronounced, ranging from approximately 4% (Subject 6) to 36% (Subject 8), with a mean decline of 13%.

An overall efficacy summary tabulated by dose is shown in Table 1. The overall mean decline was approximately 55% in triglycerides and approximately 16% in cholesterol. It is noteworthy that at 400 mg, triglycerides decreased by 70%; in three subjects. In these 3 subjects the maximum decrease in triglycerides was observed in response to 200-400 mg and reached 70%.

Along with TGs and cholesterol, HDL was also measured over the course of the study. The data indicate an increase in HDL relative to the respective basal values in 6 of the 8 subjects. The mean increase was 14% (range 8%-19%) in 5 subjects, whereas the increase was 46% in one subject. Essentially no changes from basal HDL values were found in two subjects.

TABLE 2
Summary of Efficacy

Dose	Treatment	Parameter	Mean Decline From Basal Values (%)								Mean
(mg/day)	Duration		Subject Number								±SD
	(wks)		1	2	3	4	5	6	7	8	
200	4.6±3.7	TG	32.1	64.5	18.7	30.7	47.1	53.4	30.4	65.4	43±17
	(1-12)	Ch	12.4	9.8	$7.2_{-}$	4.4	16.3	3.8	12.9	34.9	13±9
300	3.6±0.9	TG	21.3		58.0	43.0	71.9				48±22
	(3-5)	Ch	10.6		3.0	13.6	21.6				12±8
400	6.3±3.5	TG		67.7	52.0		75.5		40.0	72.0	61±15
	(1-10)	Ch		16.5	>8.4*		23.1		16.5	40.2	24±11
600	11	TG		70.6							70.6
		Ch		16.5							16.5
400/600	9	TG								70.0	70.0
		Ch								40.5	40.5
600/800	11	TG							39.6		39.6
		Ch							18.8		18.8
First		TG	27.0	34.5	33.4	38.3	57.8	48.9	30.1	64.8	46±15
Month		Ch	11.7	13.3	5.0	7.0	17.8	3.8	12.9	35.5	13±10

TG = triglycerides; Ch = cholesterol; ( ) = range of treatment duration

Total number of determinations / dose group: 34 (200); 17 (300); 34 (400); 7 (600); 13 (400/600);

6 (600/800); 33 (First month)

<sup>\*:</sup> No used to calculate mean decline